

Where:

(1) IM_i = the national bank's or Federal savings association's initial margin posted to the QCCP;

(2) IM_{CM} = the total of initial margin posted to the QCCP; and

(3) K^*_{CM} as defined above in this paragraph (d)(3)(iii).

(iv) *Method 2.* A clearing member national bank's or Federal savings association's risk-weighted asset amount for its default fund contribution to a QCCP, RWA_{DF} , equals:

$$RWA_{DF} = \text{Min} \{12.5 * DF; 0.18 * TE\}$$

Where:

(A) TE = the national bank's or Federal savings association's trade exposure amount to the QCCP calculated according to section 133(c)(2);

(B) DF = the funded portion of the national bank's or Federal savings association's default fund contribution to the QCCP.

(v) *Total risk-weighted assets for default fund contributions.* Total risk-weighted assets for default fund contributions is the sum of a clearing member national bank's or Federal savings association's risk-weighted assets for all of its default fund contributions to all CCPs of which the national bank or Federal savings association is a clearing member.

§ 3.134 Guarantees and credit derivatives: PD substitution and LGD adjustment approaches.

(a) *Scope.* (1) This section applies to wholesale exposures for which:

(i) Credit risk is fully covered by an eligible guarantee or eligible credit derivative; or

(ii) Credit risk is covered on a pro rata basis (that is, on a basis in which the national bank or Federal savings association and the protection provider share losses proportionately) by an eligible guarantee or eligible credit derivative.

(2) Wholesale exposures on which there is a tranching of credit risk (reflecting at least two different levels of seniority) are securitization exposures subject to § 3.141 through § 3.145.

(3) A national bank or Federal savings association may elect to recognize the credit risk mitigation benefits of an eligible guarantee or eligible credit

derivative covering an exposure described in paragraph (a)(1) of this section by using the PD substitution approach or the LGD adjustment approach in paragraph (c) of this section or, if the transaction qualifies, using the double default treatment in § 3.135. A national bank's or Federal savings association's PD and LGD for the hedged exposure may not be lower than the PD and LGD floors described in § 3.131(d)(2) and (d)(3).

(4) If multiple eligible guarantees or eligible credit derivatives cover a single exposure described in paragraph (a)(1) of this section, a national bank or Federal savings association may treat the hedged exposure as multiple separate exposures each covered by a single eligible guarantee or eligible credit derivative and may calculate a separate risk-based capital requirement for each separate exposure as described in paragraph (a)(3) of this section.

(5) If a single eligible guarantee or eligible credit derivative covers multiple hedged wholesale exposures described in paragraph (a)(1) of this section, a national bank or Federal savings association must treat each hedged exposure as covered by a separate eligible guarantee or eligible credit derivative and must calculate a separate risk-based capital requirement for each exposure as described in paragraph (a)(3) of this section.

(6) A national bank or Federal savings association must use the same risk parameters for calculating ECL as it uses for calculating the risk-based capital requirement for the exposure.

(b) *Rules of recognition.* (1) A national bank or Federal savings association may only recognize the credit risk mitigation benefits of eligible guarantees and eligible credit derivatives.

(2) A national bank or Federal savings association may only recognize the credit risk mitigation benefits of an eligible credit derivative to hedge an exposure that is different from the credit derivative's reference exposure used for determining the derivative's cash settlement value, deliverable obligation, or occurrence of a credit event if:

(i) The reference exposure ranks *pari passu* (that is, equally) with or is junior to the hedged exposure; and

(ii) The reference exposure and the hedged exposure are exposures to the same legal entity, and legally enforceable cross-default or cross-acceleration clauses are in place to assure payments under the credit derivative are triggered when the obligor fails to pay under the terms of the hedged exposure.

(c) *Risk parameters for hedged exposures*—(1) *PD substitution approach*—(i) *Full coverage*. If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is greater than or equal to the EAD of the hedged exposure, a national bank or Federal savings association may recognize the guarantee or credit derivative in determining the national bank's or Federal savings association's risk-based capital requirement for the hedged exposure by substituting the PD associated with the rating grade of the protection provider for the PD associated with the rating grade of the obligor in the risk-based capital formula applicable to the guarantee or credit derivative in Table 1 of § 3.131 and using the appropriate LGD as described in paragraph (c)(1)(iii) of this section. If the national bank or Federal savings association determines that full substitution of the protection provider's PD leads to an inappropriate degree of risk mitigation, the national bank or Federal savings association may substitute a higher PD than that of the protection provider.

(ii) *Partial coverage*. If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and P of the guarantee or credit derivative is less than the EAD of the hedged exposure, the national bank or Federal savings association must treat the hedged exposure as two separate exposures (protected and unprotected) in order to recognize the credit risk mitigation benefit of the guarantee or credit derivative.

(A) The national bank or Federal savings association must calculate its risk-based capital requirement for the

protected exposure under § 3.131, where PD is the protection provider's PD, LGD is determined under paragraph (c)(1)(iii) of this section, and EAD is P. If the national bank or Federal savings association determines that full substitution leads to an inappropriate degree of risk mitigation, the national bank or Federal savings association may use a higher PD than that of the protection provider.

(B) The national bank or Federal savings association must calculate its risk-based capital requirement for the unprotected exposure under § 3.131, where PD is the obligor's PD, LGD is the hedged exposure's LGD (not adjusted to reflect the guarantee or credit derivative), and EAD is the EAD of the original hedged exposure minus P.

(C) The treatment in paragraph (c)(1)(ii) of this section is applicable when the credit risk of a wholesale exposure is covered on a partial pro rata basis or when an adjustment is made to the effective notional amount of the guarantee or credit derivative under paragraphs (d), (e), or (f) of this section.

(iii) *LGD of hedged exposures*. The LGD of a hedged exposure under the PD substitution approach is equal to:

(A) The lower of the LGD of the hedged exposure (not adjusted to reflect the guarantee or credit derivative) and the LGD of the guarantee or credit derivative, if the guarantee or credit derivative provides the national bank or Federal savings association with the option to receive immediate payout upon triggering the protection; or

(B) The LGD of the guarantee or credit derivative, if the guarantee or credit derivative does not provide the national bank or Federal savings association with the option to receive immediate payout upon triggering the protection.

(2) *LGD adjustment approach*. (i) *Full coverage*. If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is greater than or equal to the EAD of the hedged exposure, the national bank's or Federal savings association's risk-

based capital requirement for the hedged exposure is the greater of:

(A) The risk-based capital requirement for the exposure as calculated under § 3.131, with the LGD of the exposure adjusted to reflect the guarantee or credit derivative; or

(B) The risk-based capital requirement for a direct exposure to the protection provider as calculated under § 3.131, using the PD for the protection provider, the LGD for the guarantee or credit derivative, and an EAD equal to the EAD of the hedged exposure.

(ii) *Partial coverage.* If an eligible guarantee or eligible credit derivative meets the conditions in paragraphs (a) and (b) of this section and the protection amount (P) of the guarantee or credit derivative is less than the EAD of the hedged exposure, the national bank or Federal savings association must treat the hedged exposure as two separate exposures (protected and unprotected) in order to recognize the credit risk mitigation benefit of the guarantee or credit derivative.

(A) The national bank's or Federal savings association's risk-based capital requirement for the protected exposure would be the greater of:

(1) The risk-based capital requirement for the protected exposure as calculated under § 3.131, with the LGD of the exposure adjusted to reflect the guarantee or credit derivative and EAD set equal to P; or

(2) The risk-based capital requirement for a direct exposure to the guarantor as calculated under § 3.131, using the PD for the protection provider, the LGD for the guarantee or credit derivative, and an EAD set equal to P.

(B) The national bank or Federal savings association must calculate its risk-based capital requirement for the unprotected exposure under § 3.131, where PD is the obligor's PD, LGD is the hedged exposure's LGD (not adjusted to reflect the guarantee or credit derivative), and EAD is the EAD of the original hedged exposure minus P.

(3) *M of hedged exposures.* For purposes of this paragraph (c), the M of the hedged exposure is the same as the M of the exposure if it were unhedged.

(d) *Maturity mismatch.* (1) A national bank or Federal savings association that recognizes an eligible guarantee

or eligible credit derivative in determining its risk-based capital requirement for a hedged exposure must adjust the effective notional amount of the credit risk mitigant to reflect any maturity mismatch between the hedged exposure and the credit risk mitigant.

(2) A maturity mismatch occurs when the residual maturity of a credit risk mitigant is less than that of the hedged exposure(s).

(3) The residual maturity of a hedged exposure is the longest possible remaining time before the obligor is scheduled to fulfil its obligation on the exposure. If a credit risk mitigant has embedded options that may reduce its term, the national bank or Federal savings association (protection purchaser) must use the shortest possible residual maturity for the credit risk mitigant. If a call is at the discretion of the protection provider, the residual maturity of the credit risk mitigant is at the first call date. If the call is at the discretion of the national bank or Federal savings association (protection purchaser), but the terms of the arrangement at origination of the credit risk mitigant contain a positive incentive for the national bank or Federal savings association to call the transaction before contractual maturity, the remaining time to the first call date is the residual maturity of the credit risk mitigant.²⁶

(4) A credit risk mitigant with a maturity mismatch may be recognized only if its original maturity is greater than or equal to one year and its residual maturity is greater than three months.

(5) When a maturity mismatch exists, the national bank or Federal savings association must apply the following adjustment to the effective notional amount of the credit risk mitigant:

$$P_m = E \times (t - 0.25) / (T - 0.25),$$

where:

²⁶ For example, where there is a step-up in cost in conjunction with a call feature or where the effective cost of protection increases over time even if credit quality remains the same or improves, the residual maturity of the credit risk mitigant will be the remaining time to the first call.

(i) P_m = effective notional amount of the credit risk mitigant, adjusted for maturity mismatch;

(ii) E = effective notional amount of the credit risk mitigant;

(iii) t = the lesser of T or the residual maturity of the credit risk mitigant, expressed in years; and

(iv) T = the lesser of five or the residual maturity of the hedged exposure, expressed in years.

(e) *Credit derivatives without restructuring as a credit event.* If a national bank or Federal savings association recognizes an eligible credit derivative that does not include as a credit event a restructuring of the hedged exposure involving forgiveness or postponement of principal, interest, or fees that results in a credit loss event (that is, a charge-off, specific provision, or other similar debit to the profit and loss account), the national bank or Federal savings association must apply the following adjustment to the effective notional amount of the credit derivative:

$$P_r = P_m \times 0.60,$$

where:

(1) P_r = effective notional amount of the credit risk mitigant, adjusted for lack of restructuring event (and maturity mismatch, if applicable); and

(2) P_m = effective notional amount of the credit risk mitigant adjusted for maturity mismatch (if applicable).

(f) *Currency mismatch.* (1) If a national bank or Federal savings association recognizes an eligible guarantee or eligible credit derivative that is denominated in a currency different from that in which the hedged exposure is denominated, the national bank or Federal savings association must apply the following formula to the effective notional amount of the guarantee or credit derivative:

$$P_c = P_r \times (1 - H_{FX}),$$

where:

(i) P_c = effective notional amount of the credit risk mitigant, adjusted for currency mismatch (and maturity mismatch and lack of restructuring event, if applicable);

(ii) P_r = effective notional amount of the credit risk mitigant (adjusted for maturity mismatch and lack of restructuring event, if applicable); and

(iii) H_{FX} = haircut appropriate for the currency mismatch between the credit risk mitigant and the hedged exposure.

(2) A national bank or Federal savings association must set H_{FX} equal to 8 percent unless it qualifies for the use of and uses its own internal estimates of foreign exchange volatility based on a ten-business-day holding period and daily marking-to-market and remargining. A national bank or Federal savings association qualifies for the use of its own internal estimates of foreign exchange volatility if it qualifies for:

(i) The own-estimates haircuts in § 3.132(b)(2)(iii);

(ii) The simple VaR methodology in § 3.132(b)(3); or

(iii) The internal models methodology in § 3.132(d).

(3) A national bank or Federal savings association must adjust H_{FX} calculated in paragraph (f)(2) of this section upward if the national bank or Federal savings association revalues the guarantee or credit derivative less frequently than once every ten business days using the square root of time formula provided in § 3.132(b)(2)(iii)(A)(2).

§ 3.135 Guarantees and credit derivatives: double default treatment.

(a) *Eligibility and operational criteria for double default treatment.* A national bank or Federal savings association may recognize the credit risk mitigation benefits of a guarantee or credit derivative covering an exposure described in § 3.134(a)(1) by applying the double default treatment in this section if all the following criteria are satisfied:

(1) The hedged exposure is fully covered or covered on a pro rata basis by:

(i) An eligible guarantee issued by an eligible double default guarantor; or

(ii) An eligible credit derivative that meets the requirements of § 3.134(b)(2) and that is issued by an eligible double default guarantor.

(2) The guarantee or credit derivative is:

(i) An uncollateralized guarantee or uncollateralized credit derivative (for example, a credit default swap) that provides protection with respect to a single reference obligor; or